

General

Guideline Title

Oral health management of patients at risk of medication-related osteonecrosis of the jaw.

Bibliographic Source(s)

Scottish Dental Clinical Effectiveness Programme. Oral health management of patients at risk of medication-related osteonecrosis of the jaw: dental clinical guidance. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme; 2017 Mar. 36 p. [63 references]

Guideline Status

This is the current release of the guideline.







This guideline meets NGC's 2013 (revised) inclusion criteria.

NEATS Assessment

National Guideline Clearinghouse (NGC) has assessed this guideline's adherence to standards of trustworthiness, derived from the Institute of Medicine's report [Clinical Practice Guidelines We Can Trust](#).

■■■■= Poor ■■■= Fair ■■■= Good ■■■= Very Good ■■■= Excellent

Assessment	Standard of Trustworthiness
YES	Disclosure of Guideline Funding Source
■■■■	Disclosure and Management of Financial Conflict of Interests
	Guideline Development Group Composition
YES	Multidisciplinary Group
UNKNOWN	Methodologist Involvement

	Patient and Public Perspectives
	Use of a Systematic Review of Evidence
	Search Strategy
	Study Selection
	Synthesis of Evidence
	Evidence Foundations for and Rating Strength of Recommendations
	Grading the Quality or Strength of Evidence
	Benefits and Harms of Recommendations
	Evidence Summary Supporting Recommendations
	Rating the Strength of Recommendations
	Specific and Unambiguous Articulation of Recommendations
	External Review
	Updating

Recommendations

Major Recommendations

Note from the Scottish Dental Clinical Effectiveness Programme (SDCEP) and National Guideline Clearinghouse (NGC): In addition to these key recommendations, the guideline development group also identifies clinical practice advice, designated by a molar icon, in the full-text guideline document.

Classification of Patient Risk

Assessing Patient Risk

Assess whether a patient taking anti-resorptive or anti-angiogenic drugs is at low risk or higher risk of developing medication-related osteonecrosis of the jaw (MRONJ) based on their medical condition, type and duration of drug therapy and any other complicating factors and record this in the patient's clinical notes. (Strong recommendation; low quality evidence)

Managing Patients at Risk of MRONJ

Initial Management of Patients at Risk of MRONJ

Before commencement of anti-resorptive or anti-angiogenic drug therapy, or as soon as possible thereafter, aim to get the patient as dentally fit as feasible, prioritising preventive care. Higher risk cancer patients should preferably undergo a thorough dental assessment, with remedial dental treatment where required, prior to commencement of the drug therapy. (Strong recommendation; low quality evidence)

Continuing Management of Patients at Risk of MRONJ

Carry out all routine dental treatment as normal and continue to provide personalised preventive advice in primary care.

- Perform straightforward extractions and other bone-impacting treatments in low risk patients in primary care.
- Adopt a more conservative approach in higher risk patients, giving greater consideration to other, less invasive alternative treatment options before performing extractions and other bone-impacting treatments in primary care.

Do not prescribe antibiotic or antiseptic prophylaxis following extractions or other bone-impacting treatments specifically to reduce the risk of MRONJ. (Strong recommendation; low quality evidence)

Definitions

Grading of Recommendations Assessment, Development and Evaluation (GRADE) Definitions of Quality of the Evidence

High quality	Further research is unlikely to change the guideline panel's confidence in the estimate of the effect (e.g., risk of bleeding).
Moderate quality	Further research is likely to have an important impact on the guideline panel's confidence in the estimate of effect and may change the effect.
Low quality	Further research is very likely to have an important impact on our confidence in the evidence and is likely to change the estimate of the effect.
Very low quality	Any estimate of effect from the evidence is very uncertain.

GRADE Definitions of Strength of Recommendation

Strong for	Benefits outweigh risks of the intervention
Strong against	Risks outweigh benefits of the intervention
Weak for/or weak against (or conditional)	Most informed people would choose this recommendation but a substantial number would not (risk and benefits finely balanced)

Clinical Algorithm(s)

The following algorithms are provided in the original guideline document:

- Assessment of Patient Risk
- Managing the Oral Health of Patients at Risk of Medication-related Osteonecrosis of the Jaw (MRONJ)

Scope

Disease/Condition(s)

Medication-related osteonecrosis of the jaw (MRONJ)

Guideline Category

Evaluation

Management

Risk Assessment

Treatment

Clinical Specialty

Dentistry

Family Practice

Intended Users

Allied Health Personnel

Dentists

Patients

Pharmacists

Physicians

Students

Guideline Objective(s)

- To support dental practitioners to manage the routine dental treatment of patients prescribed drugs associated with medication-related osteonecrosis of the jaw (MRONJ)
- To help minimise the risk of MRONJ developing in these patients and to encourage a consistent approach to their oral health management
- To empower dental staff to provide routine dental care for this patient group within primary care thereby minimising the need for consultation and referral to secondary care

Note: The specialist management of dental patients with MRONJ lesions is beyond the scope of this guidance and is not discussed.

Target Population

- Patients prescribed drugs associated with medication-related osteonecrosis of the jaw including anti-resorptive drugs, such as the bisphosphonates and denosumab, and anti-angiogenic therapies, such as bevacizumab, sunitinib and aflibercept (those who are about to start taking the drug and those who are already taking the drug)
- Patients who have taken anti-resorptive drugs in the past and are no longer taking them

Interventions and Practices Considered

1. Assessment and classification of patient risk
2. Preventive care
3. Dental assessment
4. Remedial dental treatment
5. Routine dental treatment
6. Personalized preventive advice

Note: The following was considered by not recommended: antibiotic or antiseptic prophylaxis following extractions or other bone-impacting treatments specifically to reduce the risk of medication-related osteonecrosis of the jaw (MRONJ).

Major Outcomes Considered

Incidence of medication-related osteonecrosis of the jaw

Methodology

Methods Used to Collect/Select the Evidence

Hand-searches of Published Literature (Primary Sources)

Hand-searches of Published Literature (Secondary Sources)

Searches of Electronic Databases

Description of Methods Used to Collect/Select the Evidence

The development of Oral Health Management of Patients at Risk of Medication-related Osteonecrosis of the Jaw followed the National Institute for Health and Care Excellence (NICE) accredited methodology described in the Scottish Dental Clinical Effectiveness Programme (SDCEP) Guidance Development Process Manual (Version 1.3., February 2016).

Literature Search

The guiding principle for developing guidance within the SDCEP is to first source existing guidelines, policy documents, legislation or other recommendations. Similarly, relevant systematic reviews are also initially identified. These documents are appraised for their quality of development, evidence base and applicability to the remit of the guidance under development. In the absence of these documents or when supplementary information is required, other published literature and unpublished work may be sought.

For this guidance, a comprehensive search of MEDLINE, EMBASE, CINAHL, AMED, CANCERLIT, Cochrane Database of Systematic Reviews (CDSR), Cochrane Database of Abstracts of Reviews of Effects (DARE) and Cochrane Central Register of Controlled Trials (CENTRAL) was conducted by the Trials Search Coordinator of the Cochrane Oral Health Group on the 1st June 2015. No date limits were applied. The details of the searches can be found in Appendix 2 in the Guidance Development Methodology document (see the "Availability of Companion Documents" field). Following de-duplication, a total of 1160 records were retrieved.

Potentially eligible articles were identified separately by two reviewers from the list of titles and abstracts retrieved by the dental specific search. An article was considered potentially eligible if it met all of the following criteria:

The article was a systematic review or a guideline. An article would be included as a systematic review, if it included a methods section, a search of 1 or more electronic databases and a table of included studies. An article was included as a guideline if it made recommendations for clinical practice.

The article referred to (i) anti-resorptive or anti-angiogenic drugs and (ii) osteonecrosis of the jaw in the context of dental treatment.

Copies of all potentially eligible articles in full were retrieved. Additional manual searching of guideline repositories and other resources, and follow up of citations from relevant articles found through the systematic searching was also carried out. Other sources of evidence identified by guidance development group (GDG) members were also considered, taking relevance and methodological quality into account. To ensure that the final version of the guidance included the most up-to-date evidence, the literature search was repeated during the consultation and peer review processes to identify any relevant articles published between June 2015 and August 2016. Following de-duplication, a total of 173 records were

retrieved. Any relevant new evidence was considered by the GDG prior to publication.

Number of Source Documents

Nine systematic reviews and 3 guidelines were considered relevant and informed the recommendations in the guidance.

Methods Used to Assess the Quality and Strength of the Evidence

Weighting According to a Rating Scheme (Scheme Given)

Rating Scheme for the Strength of the Evidence

Grading of Recommendations Assessment, Development and Evaluation (GRADE) Definitions of Quality of the Evidence

High quality	Further research is unlikely to change the guideline panel's confidence in the estimate of the effect (e.g., risk of bleeding).
Moderate quality	Further research is likely to have an important impact on the guideline panel's confidence in the estimate of effect and may change the effect.
Low quality	Further research is very likely to have an important impact on our confidence in the evidence and is likely to change the estimate of the effect.
Very low quality	Any estimate of effect from the evidence is very uncertain.

Methods Used to Analyze the Evidence

Review of Published Meta-Analyses

Systematic Review with Evidence Tables

Description of the Methods Used to Analyze the Evidence

Evidence Appraisal and Synthesis

Eligible articles relevant for each of the key clinical questions were identified. Precedence was given to the most recent articles, where of suitable quality, published in English. A reviewer assessed the full text of each article and extracted the information applicable to the clinical question. The evidence appraisal form for each of the relevant articles can be found in Appendix 4 of the Guidance Development Methodology document (see the "Availability of Companion Documents" field).

For the development of this guidance the Scottish Dental Clinical Effectiveness Programme (SDCEP) used the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) approach to assess and rate the quality of evidence (www.gradeworkinggroup.org). The GRADE framework is a widely accepted system for grading both the evidence and the recommendations, and is used internationally by other guideline producers.

After systematic consideration of several criteria, a GRADE 'quality of evidence' rating was assigned to the evidence relevant to each clinical question. GRADE evidence ratings are defined by the GRADE working group as in the "Rating Scheme for the Strength of the Evidence" field.

The GRADE evidence ratings for the outcomes from each of the systematic reviews are recorded in the considered judgement forms in Appendix 3 and in the respective evidence appraisal forms (Appendix 4)

(see the "Availability of Companion Documents" field).

For guidelines, the Appraisal of Guidelines Research and Evaluation (AGREE) II instrument was used in addition to GRADE to assess the methodological quality of the retrieved articles (www.agreetrust.org [redacted]). The AGREE II instrument is a simple and validated assessment tool that provides an overall quality score for each guideline and an indication of how reliable the guideline might be. These assigned scores are recorded in the evidence appraisal forms in Appendix 4. The output forms produced by the AGREE II tool used for assessing guidelines are available on request.

Methods Used to Formulate the Recommendations

Expert Consensus

Description of Methods Used to Formulate the Recommendations

Development and Presentation of the Guidance Recommendations

To develop the recommendations for this guidance, Scottish Dental Clinical Effectiveness Programme (SDCEP) convened a multidisciplinary guidance development group including medical and dental practitioners and specialists along with patient representatives. The key recommendations presented in the guidance were developed through considered judgements, made by the group, based on existing guidelines, the available evidence, clinical experience, expert opinion and patient and practitioner perspectives. Details of these considered judgements are available at www.sdcep.org.uk [redacted]. The impact of potential barriers identified during guidance development and through stakeholder involvement and external consultation was also considered when formulating the recommendations.

Strength of Recommendations

The process for the development of recommendations followed the GRADE (Grading of Recommendations, Assessment, Development and Evaluation) approach (www.gradeworkinggroup.org [redacted]). The strength of each key recommendation is stated directly after the recommendation with a brief justification in the accompanying text. Strength of recommendation is not automatically dictated by evidence quality. Other factors, such as applicability, consistency and balance of benefits and harms are considered when forming recommendations and it is possible to make a strong recommendation where the evidence base is considered weak. A strong recommendation is one where it is considered, based on all the available information and weighing up the balance of benefits versus risk, that almost all individuals would choose this option. A conditional recommendation is one where there is a finer balance between the options and it is likely that the majority but not all would choose the recommended option. In the case of a conditional recommendation, the practitioner should expect to spend more time discussing the management options so that the patient can make an informed decision. Further details can be found in Appendix 1 in the original guideline document and at www.sdcep.org.uk [redacted].

Other clinical practice advice in the guidance is based on consensus, expert opinion and existing best practice as identified in the accompanying text. These advice points are indicated with molar bullet points in the original guideline document.

Key Clinical Questions

Key clinical questions relevant to the scope of the guidance were drafted by the SDCEP Programme Development Team (PDT) along with the GDG chair (see the Guidance Development Methodology document [see the "Availability of Companion Documents" field]). These were further discussed and agreed by the wider GDG. These key clinical questions informed the strategy for the systematic evidence searches.

Considered Judgements and Development of Recommendations

The synthesised evidence for each clinical question was summarised and used to inform and facilitate the development of the recommendations for the guidance. Where authoritative evidence was unavailable, the guidance development group (GDG) was asked to make recommendations based on current best practice and expert opinion, reached by consensus.

The process for development of recommendations followed the GRADE approach, with considered judgements based on the quality of evidence, the balance of risks and benefits, the values and preferences of the patients, and the practicalities of the treatment. The relative importance of each of these criteria for a given recommendation was decided by the GDG.

The evidence summaries, GDG consideration of the criteria and the resulting outcomes for each key recommendation are recorded in the Considered Judgement Forms (one for each key clinical question) which can be found in Appendix 3 in the Guidance Development Methodology document (see the "Availability of Companion Documents" field). Some of the recommendations were subject to further review and revisions by the group during the guidance development process.

Rating Scheme for the Strength of the Recommendations

Grading of Recommendations Assessment, Development and Evaluation (GRADE) Definitions of Strength of Recommendation

Strong for	Benefits outweigh risks of the intervention
Strong against	Risks outweigh benefits of the intervention
Weak for/or weak against (or conditional)	Most informed people would choose this recommendation but a substantial number would not (risk and benefits finely balanced)

Cost Analysis

A formal cost analysis was not performed and published cost analyses were not reviewed.

Method of Guideline Validation

External Peer Review

Description of Method of Guideline Validation

Consultation and Peer Review

A twelve-week external consultation process on the draft guidance was initiated on July 11th 2016. The consultation draft was made openly available through the Scottish Dental Clinical Effectiveness Programme (SDCEP) Web site and notification of this was sent to a wide range of individuals and organisations with a specific interest in this topic, in addition to professional bodies and charities representing patient groups. All dentists and pharmacists in Scotland were notified that the consultation draft was available for comment. To encourage feedback from the end-users of the guidance, 50 randomly selected dentists were contacted directly to evaluate the guidance. Additionally, interviews were arranged with dentists and pharmacists to further inform the guidance development.

A consultation feedback form was provided to facilitate the process. All comments received were compiled, considered carefully by the guidance development group (GDG) and the guidance amended accordingly prior to publication. The compiled consultation comments and GDG responses are available on request.

Targeted external peer review was also conducted as a means of additional quality assurance. External experts, including experts in the field, representatives of professional bodies and those with a background in the methodology of guidance development/evidence appraisal, were approached and asked to comment on the applicability and suitability of the guidance to the intended audience (predominantly primary dental care in Scotland) and to indicate whether they think the process used to develop the guidance was satisfactory. This process took place over a four-week period in August and September 2016 and all peer reviewers were asked to complete a Declaration of Interests form.

As with the feedback received during the open consultation, comments received during targeted external expert review were compiled and considered by the GDG to inform further development of the guidance. The compiled peer review comments and GDG responses are available on request.

Evidence Supporting the Recommendations

Type of Evidence Supporting the Recommendations

The type of evidence is identified and graded for each recommendation (see the "Major Recommendations" field).

Benefits/Harms of Implementing the Guideline Recommendations

Potential Benefits

There is some low quality evidence, mainly based on observational studies, that preventive dental regimes can decrease the risk of oral complications in this patient group by reducing the need for subsequent extractions or other procedures which impact on bone.

Potential Harms

- Medication-related osteonecrosis of the jaw (MRONJ) is an adverse drug reaction and as such is monitored by the Medicines and Healthcare products Regulatory Agency (MHRA) (www.mhra.gov.uk). If a patient has suspected MRONJ, dental practitioners are encouraged to notify the MHRA via the Yellow Card Scheme (yellowcard.mhra.gov.uk). Reporting is important to help the MHRA assess additional risk factors and identify drugs not previously associated with MRONJ. Duplicate reporting, for example by clinicians in both primary and secondary care, does not lead to over-estimation of incidence as duplicate reports are identified and can add value to the overall information on a suspected adverse drug reaction. Reporting is confidential and patients should also be encouraged to report via the scheme.
- Dental treatments that impact on bone, such as extractions, may increase the risk of MRONJ, therefore all possible alternatives should be considered to avoid extractions where possible. However, there will be cases where extraction is the only treatment option.
- Due to the increasing incidence of bacterial resistance and the numerous side effects associated with antibiotic therapy, antibiotics should only be prescribed where there is clear evidence that patients will benefit from them.

Contraindications

Contraindications

It is generally agreed that implant placement should be avoided in patients who are being treated with high dose anti-resorptive or anti-angiogenic drugs for the management of cancer.

Qualifying Statements

Qualifying Statements

Statement of Intent

This guidance is based on careful consideration of the available information and resources at the time of publication and has been developed through consultation with experts and end-users (see Appendix 1 in the original guideline document). As guidance, it does not override the healthcare professional's right, and duty, to make decisions appropriate to each patient, with their informed consent. However, it is advised that departures from this guidance, and the reasons for this, are fully documented in the patient's clinical record.

Implementation of the Guideline

Description of Implementation Strategy

Recognising that publication of guidance alone is likely to have a limited influence on practice, the Scottish Dental Clinical Effectiveness Programme (SDCEP) also contributes to the research and development of interventions to enhance the translation of guidance recommendations into practice through its participation in the TRiADS (Translation Research in a Dental Setting) collaboration (www.triads.org.uk).

Information about potential barriers to guidance implementation is sought at various stages during the development process such as during scoping, consultation and peer review, targeted external expert review and at other times pre-publication. Refer to the Guidance Development Process Manual for additional information on implementation of SDCEP guidance (see the "Availability of Companion Documents" field).

Implementation Tools

Clinical Algorithm

Patient Resources

Quick Reference Guides/Physician Guides

Resources

Slide Presentation

For information about availability, see the *Availability of Companion Documents* and *Patient Resources* fields below.

Institute of Medicine (IOM) National Healthcare Quality Report Categories

IOM Care Need

Living with Illness

Staying Healthy

IOM Domain

Effectiveness

Patient-centeredness

Identifying Information and Availability

Bibliographic Source(s)

Scottish Dental Clinical Effectiveness Programme. Oral health management of patients at risk of medication-related osteonecrosis of the jaw: dental clinical guidance. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme; 2017 Mar. 36 p. [63 references]

Adaptation

Not applicable: The guideline was not adapted from another source.

Date Released

2017 Mar

Guideline Developer(s)

Scottish Dental Clinical Effectiveness Programme - Government Affiliated Research Institute

Source(s) of Funding

The Scottish Dental Clinical Effectiveness Programme (SDCEP) is funded by NES (National Health Service [NHS] Education for Scotland).

Guideline Committee

- Guidance Development Group
- The Scottish Dental Clinical Effectiveness Programme's (SDCEP's) Programme Development Team

Composition of Group That Authored the Guideline

Guidance Development Group: Michaelina Macluskey (*Co-Chair*), Senior Lecturer/Honorary Consultant Oral Surgeon, Dundee Dental Hospital and School; Stephanie Sammut (*Co-Chair*), Consultant in Oral Surgery, Dundee Dental Hospital and School; Alexander Crichton, Consultant in Oral Medicine, University of Glasgow Dental Hospital and School; Helen Devennie, Specialist Practitioner (Medically Compromised and Oral Surgery), Inverness Dental Centre; Elizabeth Foster, Patient Representative; Karen Gordon,

Consultant in Special Care Dentistry, Edinburgh; Duncan Gowans, Consultant Haematologist, Ninewells Hospital, Dundee and Perth Royal Infirmary; Vicki Greig, Specialty Registrar in Oral Surgery, NHS Greater Glasgow and Clyde; Doris Hunter, Patient Representative; Douglas Kennedy, Consultant in Oral & Maxillofacial Surgery, NHS Tayside; Pamela Kidd, General Dental Practitioner, Glasgow; Penny Lockwood, General Medical Practitioner, Dundee and Honorary Senior Clinical Lecturer, University of Dundee; Nick Malden, Consultant in Oral Surgery, Edinburgh Dental Institute; Anna Macdonald, Senior Dental Officer, Specialist in Special Care Dentistry, Perth; Gillian Nevin, General Dental Practitioner, Coupar Angus and Assistant Director of Postgraduate GDP Education, NHS Education for Scotland; Terence O'Neill, Professor of Rheumatology and Clinical Epidemiology, University of Manchester and Member of the Clinical & Scientific Committee, National Osteoporosis Society; David Reid, Emeritus Professor of Rheumatology, University of Aberdeen; Andrew Wight, General Dental Practitioner, Dundee

Programme Development Team: Jan Clarkson, Professor of Clinical Effectiveness, University of Dundee and SDCEP Director; Doug Stirling, Programme Manager – Guidance and Programme Development; Samantha Rutherford, Research and Development Manager – Guidance Development and Lead for this guidance project; Linda Young, Programme Manager – Evaluation of Implementation; Heather Cassie, Research Fellow; Laura Lovelock-Hempleman, Clinical Research Dental Hygienist-Therapist; Margaret Mooney, Administrator

Financial Disclosures/Conflicts of Interest

Conflict of Interest

All contributors to the Scottish Dental Clinical Effectiveness Programme (SDCEP), including members of the guidance development group (GDG), are required to complete an SDCEP Declaration of Interests form to disclose relevant interests including financial conflicts of interest, such as receipt of fees for consulting with industry, and intellectual conflicts of interest, such as publication of original data bearing directly on a recommendation. These forms are held by SDCEP, updated yearly and are available on request. At the beginning of each group meeting during guidance development, participants are asked to confirm whether there are any changes to their Declaration of Interests.

Any declared interests which could constitute a conflict of interest are considered by the group to decide whether and how the extent of the individual's participation in the guidance development should be limited (e.g., exclusion from certain decisions or stages, or complete withdrawal).

Summary of Disclosures

All of the GDG members completed and returned the Declaration of Interests form. The Clinical Co-Chairs of the group had no declared interests. Three of the 18 external group members disclosed interests relevant to the guidance which could potentially cause, or be perceived to cause, conflicts of interest.

For the *Oral Health Management of Patients at Risk of Medication-related Osteonecrosis of the Jaw* guidance project the potential conflicts of interest and management decisions are available in the Guidance Development Methodology document (see the "Availability of Companion Documents" field).

Further information on SDCEP's approach to conflicts of interest is available in the SDCEP Guidance Development Process Manual (version 1.3, February 2016) (see the "Availability of Companion Documents" field).

Guideline Endorser(s)

Faculty of General Dental Practice (UK) - Medical Specialty Society

Royal College of Physicians and Surgeons of Glasgow - Clinical Specialty Collaboration

Royal College of Surgeons of Edinburgh - Medical Specialty Society

Guideline Status

This is the current release of the guideline.

This guideline meets NGC's 2013 (revised) inclusion criteria.

Guideline Availability

Available from the [Scottish Dental Clinical Effectiveness Programme \(SDCEP\) Web site](#)

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Availability of Companion Documents

The following are available:

Oral health management of patients at risk of medication-related osteonecrosis of the jaw: guidance development methodology. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2017 Apr. 86 p. Available from the [Scottish Dental Clinical Effectiveness Programme \(SDCEP\) Web site](#) .

Oral health management of patients at risk of medication-related osteonecrosis of the jaw: guidance in brief. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2017 Mar. 6 p. Available from the [SDCEP Web site](#) .

Guidance for prescribers and dispensers of anti-resorptive or anti-angiogenic drugs. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 1 p. Available from the [SDCEP Web site](#) .

Oral health management of patients at risk of medication-related osteonecrosis of the jaw. PowerPoint presentation. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2017 Mar. 14 p. Available from the [SDCEP Web site](#) .

Guidance development process manual. Version 1.3. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2016 Feb. 20 p. Available from the [SDCEP Web site](#)

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In addition, Appendix 2 in the [original guideline document](#) contains a list of drugs associated with MRONJ prescribed in the United Kingdom (UK).

Patient Resources

The following are available:

Dental advice for patients prescribed anti-resorptive drugs for the treatment of osteoporosis or other non-malignant diseases of bone. Information leaflet for patients. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2017 Mar. 2 p. Available from the [Scottish Dental Clinical Effectiveness Programme \(SDCEP\) Web site](#) .

Dental advice for patients prescribed anti-resorptive or anti-angiogenic drugs for the management of cancer. Dundee (Scotland): Scottish Dental Clinical Effectiveness Programme (SDCEP); 2017 Mar. 2 p. Available from the [SDCEP Web site](#) .

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care

professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

NGC Status

This NGC summary was completed by ECRI Institute on February 27, 2018. The information was verified by the guideline developer on March 27, 2018.

This NEATS assessment was completed by ECRI Institute on February 20, 2018. The information was verified by the guideline developer on March 27, 2018.

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